

Patent Claims

We Claim As Our Invention

1. A method for determining the operability of at least one radio channel in a radio communication system, especially in a mobile radio system, the at least one radio channel being an observed radio channel, the operating state of which is established continuously in time and/or repeatedly and in which the operability of the observed radio channel is determined by evaluating the history of the operating state.
2. The method as claimed in claim 1, in which a mean value of the operating state is determined over a period of observation in the evaluation of the history.
3. The method as claimed in claim 1 or 2, in which the value of a measured value (E) characteristic of the operating state of the respective observed radio channel is determined in the establishment of the operating state.
4. The method as claimed in claim 3, in which it is established during the evaluation of the history whether the measured value (E) has reached or exceeded or undershot a predetermined limit value in a period of observation.
5. The method as claimed in claim 3 or 4, in which a short-time fluctuation of the measured value (E) remains unconsidered in the evaluation of the history.
6. The method as claimed in one of claims 1 to 5, in which the operating state of a plurality of the observed radio channels is in each case established and in which a correlation of the development of the operating state of at least some of the observed radio channels with time is determined in the evaluation of the history.

7. The method as claimed in claim 6, in which the radio channels are physical channels of a TDMA (Time Division Multiple Access) radio communication system and in which a temporal drift of a radio channel is established from the correlation of the development of observed radio channels with time which have the same radio frequency.

8. The method as claimed in one of claims 1 to 7, in which a measure of the operating state is repeatedly established and in each case a corresponding value is stored in a data field of a data memory for storing the development of the operating state with time.

9. The method as claimed in one of claims 1 to 8, in which the radio channels are physical channels of a TDMA (Time Division Multiple Access)/FDMA (Frequency Division Multiple Access) radio communication system and in which the operating state of each available radio channel is known or is established by observing the at least one observed radio channel.

10. Transmitting and/or receiving station (10) for a radio communication system, especially a base station or mobile station for a mobile radio system, for transmitting and/or receiving communication information which is transmitted via an air interface (5), comprising

- a receiving device (13) via which at least one observed radio channel, which is currently not used for transmitting or receiving the communication information, can be observed by establishing its operating state continuously in time and/or repeatedly,
- a storage device (14) for storing values which reproduce the history of the operating state of the at least one observed radio channel, and

- ~~- an evaluation device (15) for determining the operability of the observed radio channel for transmitting and/or receiving the communication information by evaluating the history of the operating state.~~

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